

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-17819-1
Client Project/Site: Rainier Commons

For:
Clean Harbors Environmental Services Inc
19320 Des Moines Memorial Dr
Bldg D, Suite 400
Seatac, Washington 98148

Attn: Shawn Estrada

Pamela R. Johnson

Authorized for release by:
2/25/2010 7:30 PM

Pam Johnson
Project Manager I
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Qualifier Definition/Glossary

Client: Clean Harbors Environmental Services Inc
Project/Site: Rainier Commons

TestAmerica Job ID: 580-17819-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
A	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
X	Surrogate exceeds the control limits

Glossary

Glossary	Glossary Description
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis.



Job Narrative
580-17819-1

Comments

No additional comments.

Receipt

All samples were received in good condition within temperature requirements.

GC Semi VOA - Method 8082

The following sample contained more than one Aroclor component: 580-17819-1. The last peak of PCB-1254 and the first two peaks of PCB-1260 were deleted in order to minimize high biased results caused from overlapping peaks. Results are estimated due to shared peaks.

The capping continuing calibration verifications (CCV 58625/ 17 and 18) analyzed in analytical batch 58625 exceeded the lower control limits. The associated sample (580-17819-1) was re-analyzed yielding similarly low biased capping CCV results (analytical batch 58764); therefore sample matrix is suspected to have contributed to these failures. The results were "A" flagged and reported from the original analysis.

No other analytical or quality issues were noted.

General Chemistry

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.



Analytical Data

Client: Clean Harbors Environmental Services Inc
Project/Site: Rainier Commons

TestAmerica Job ID: 580-17819-1

Client Sample ID: RC 150210

Lab Sample ID: 580-17819-1

Date Collected: 02/15/10 10:50

Matrix: Solid

Date Received: 02/15/10 11:30

Percent Solids: 95.7

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.010		mg/Kg	*	02/15/10 13:23	02/16/10 13:58	1
PCB-1221	ND		0.010		mg/Kg	*	02/15/10 13:23	02/16/10 13:58	1
PCB-1232	ND		0.010		mg/Kg	*	02/15/10 13:23	02/16/10 13:58	1
PCB-1242	ND		0.010		mg/Kg	*	02/15/10 13:23	02/16/10 13:58	1
PCB-1248	ND		0.010		mg/Kg	*	02/15/10 13:23	02/16/10 13:58	1
PCB-1254	0.27		0.010		mg/Kg	*	02/15/10 13:23	02/16/10 13:58	1
PCB-1260	0.15	^	0.010		mg/Kg	*	02/15/10 13:23	02/16/10 13:58	1

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	70		45 - 155	02/15/10 13:23	02/16/10 13:58	1
DCB Decachlorobiphenyl	76		60 - 125	02/15/10 13:23	02/16/10 13:58	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	96		0.10		%			02/16/10 14:29	1
Percent Moisture	4.3		0.10		%			02/16/10 14:29	1

Quality Control Data

Client: Clean Harbors Environmental Services Inc
Project/Site: Rainier Commons

TestAmerica Job ID: 580-17819-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 580-58586/1-A
Matrix: Solid
Analysis Batch: 58625

Client Sample ID: MB 580-58586/1-A
Prep Type: Total/NA
Prep Batch: 58586

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.010		mg/Kg		02/15/10 13:23	02/16/10 10:37	1
PCB-1221	ND		0.010		mg/Kg		02/15/10 13:23	02/16/10 10:37	1
PCB-1232	ND		0.010		mg/Kg		02/15/10 13:23	02/16/10 10:37	1
PCB-1242	ND		0.010		mg/Kg		02/15/10 13:23	02/16/10 10:37	1
PCB-1248	ND		0.010		mg/Kg		02/15/10 13:23	02/16/10 10:37	1
PCB-1254	ND		0.010		mg/Kg		02/15/10 13:23	02/16/10 10:37	1
PCB-1260	ND		0.010		mg/Kg		02/15/10 13:23	02/16/10 10:37	1
Surrogate	% Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	89		45 - 155				02/15/10 13:23	02/16/10 10:37	1
DCB Decachlorobiphenyl	93		60 - 125				02/15/10 13:23	02/16/10 10:37	1

Lab Sample ID: LCS 580-58586/2-A
Matrix: Solid
Analysis Batch: 58625

Client Sample ID: LCS 580-58586/2-A
Prep Type: Total/NA
Prep Batch: 58586

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	% Rec.	Limits
PCB-1016	0.100	0.0929		mg/Kg	93	40 - 140
PCB-1260	0.100	0.104		mg/Kg	104	60 - 130
Surrogate	% Recovery	LCS Qualifier	Limits			
Tetrachloro-m-xylene	88		45 - 155			
DCB Decachlorobiphenyl	93		60 - 125			

Lab Sample ID: 580-17785-A-1-F MS
Matrix: Solid
Analysis Batch: 58625

Client Sample ID: 580-17785-A-1-F MS
Prep Type: Total/NA
Prep Batch: 58586

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	% Rec.	Limits
PCB-1016	ND		0.140	0.131		mg/Kg	94	40 - 140
PCB-1260	ND		0.140	0.141		mg/Kg	101	60 - 130
Surrogate	% Recovery	MS Qualifier	Limits					
Tetrachloro-m-xylene	60		45 - 155					
DCB Decachlorobiphenyl	53	X	60 - 125					

Lab Sample ID: 580-17785-A-1-G MSD
Matrix: Solid
Analysis Batch: 58625

Client Sample ID: 580-17785-A-1-G MSD
Prep Type: Total/NA
Prep Batch: 58586

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	% Rec.	Limits	RPD	Limit
PCB-1016	ND		0.141	0.133		mg/Kg	94	40 - 140	2	20
PCB-1260	ND		0.141	0.131		mg/Kg	92	60 - 130	8	20
Surrogate	% Recovery	MSD Qualifier	Limits							
Tetrachloro-m-xylene	84		45 - 155							
DCB Decachlorobiphenyl	79		60 - 125							

TestAmerica Seattle

02/25/2010

Quality Control Data

Client: Clean Harbors Environmental Services Inc
Project/Site: Rainier Commons

TestAmerica Job ID: 580-17819-1

Method: Moisture - Percent Moisture

Lab Sample ID: 580-17830-A-22 DU

Matrix: Solid

Analysis Batch: 58655

Client Sample ID: 580-17830-A-22 DU

Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	RPD	RPD
	Result	Qualifier	Result	Qualifier			Limit
Percent Solids	92		92		%	0	20
Percent Moisture	7.9		8.1		%	3	20



Lab Chronicle

Client: Clean Harbors Environmental Services Inc
Project/Site: Rainier Commons

TestAmerica Job ID: 580-17819-1

Client Sample ID: RC 150210

Lab Sample ID: 580-17819-1

Date Collected: 02/15/10 10:50

Matrix: Solid

Date Received: 02/15/10 11:30

Percent Solids: 95.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3550B		1	58586	02/15/10 13:23	SP	TestAmerica Seattle
Total/NA	Analysis	8082		1	58625	02/16/10 13:58	SLC	TestAmerica Seattle
Total/NA	Analysis	Moisture		1	58655	02/16/10 14:29	KKJ	TestAmerica Seattle

Certification Summary

Client: Clean Harbors Environmental Services Inc
Project/Site: Rainier Commons

TestAmerica Job ID: 580-17819-1

Laboratory	Program	Authority	EPA Region	Certification ID	Expiration Date
TestAmerica Seattle	DoD ELAP	L-A-B	0	L2236	01/19/13
TestAmerica Seattle	ISO/IEC 17025	L-A-B	0	L2236	01/19/13
TestAmerica Seattle	NELAC Primary AB	Oregon	10	WA100007	11/06/09
TestAmerica Seattle	NELAC Secondary AB	California	9	1115CA	01/31/10
TestAmerica Seattle	State Program	Alaska	10	UST-022	03/04/10
TestAmerica Seattle	State Program	Washington	10	C1226	02/17/11
TestAmerica Seattle	USDA			P330-08-00099	05/22/11

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: Clean Harbors Environmental Services Inc
Project/Site: Rainier Commons

TestAmerica Job ID: 580-17819-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL TAC
Moisture	Percent Moisture	EPA	TAL TAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL TAC = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

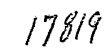
Sample Summary

Client: Clean Harbors Environmental Services Inc
Project/Site: Rainier Commons

TestAmerica Job ID: 580-17819-1

Lab Sample ID	Client Sample ID	Matrix	Sampled	Received
580-17819-1	RC 150210	Solid	02/15/10 10:50	02/15/10 11:30



☐ Other

RCLLC 0001595

Login Sample Receipt Check List

Client: Clean Harbors Environmental Services Inc

Job Number: 580-17819-1

Login Number: 17819

Creator: Presley, Kim

List Number: 1

List Source: TestAmerica Tacoma

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	N/A	Received ambient
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	False	No sample time on COC, logged in per container
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	False	
Sample Preservation Verified	N/A	